

## ABSTRACT OF THE DISCLOSURE

An electrodeless lighting apparatus using microwave and a method for controlling its power can lengthen lifetimes of the magnetron by constantly maintaining power applied to a magnetron of the electrodeless lighting apparatus using microwave. Therefore, when inputted AC voltage is changed, and thus oscillation current applied to a filament of the magnetron is changed, a rate of variability of voltage of the inputted AC power is compensated so that voltage and current applied to the magnetron is constantly maintained.